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Young-Geun Jang

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THE FARRELL LAW FIRM, P.C.
333 EARLE OVINGTON BOULEVARD
SUITE 701
UNIONDALE, NY 11553

EXAMINER

KIM, WESLEY LEO

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/785,264
Filing Date: February 23, 2004
Appellant(s): JANG, YOUNG-GEUN

MAILED

MAR 06 2008

Technology Center 2600

Paul J. Farrell
(Reg. No. 33,494)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/13/07 appealing from the Office
action mailed 6/11/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6240293	KOSTER	5-2001
5881145	GIUHAT ET AL	3-1999
2002/0107011 A1	MAZZARELLA ET AL	8-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following Office Action has been modified to clarify certain issues addressed by Appellants arguments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koster (US Patent 6240293 B1) in view of Giuhath et al (US Patent 5881145).

Regarding Claims 1 and 6, Koster teaches mobile communication system for providing a phone number maintaining service capable of allowing a user to continue to use a previously assigned phone number regardless of a change in service provider (Abstract), the system comprising:

a second MSC (Fig.1;55, donor service provider) for determining a changed service provider of the called terminal based on the called terminal information included in the call request signal transmitted (Col.6; lines 53-55, donor service provider is associated with second MSC), and transmitting the call request signal to a communication network formed by the determined service provider (Col.6; lines 55-57); and

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a third MSC (Fig.1;65, ported-to service provider) for transmitting the call request signal received from the second MSC to the called terminal so that the called terminal can communicate with the calling terminal over a communication network formed by the changed service provider (Col.6; lines 53-55 and Col.6; lines 1-9, call is routed to port-to service provider to connect the call via third MSC), however Koster is **silent on** a first mobile switching center (MSC) for receiving a call request signal with calling terminal information and called terminal information, determining an initial service provider of a called terminal from the called terminal information, and transmitting the call request signal to a communication network formed by the determined initial service provider of the called terminal.

Giuhat teaches of a concept well known in telecommunication systems that redirection of calls to ported directory numbers are routed using the ported directory number as the called party number, from an originating network node towards the donor network node (Abstract; lines 6-9). It is obvious that Giuhats concept in combination with Koster's system of processing calls and providing local number portability in a wireless communications environment, where the originating network (i.e. originating service provider) with an MSC (Koster; Col.6; lines 1-9, MSC's are essential for routing calls between wireless base stations and PSTN's and also allows mobile users to communicate with one another), would provide a system to properly route the ported directory number (i.e. the dialed number). The originating service provider with an MSC as taught by Koster would receive a call request at the

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first MSC and determine the initial service provider (i.e. donor service provider or second MSC) and route the call accordingly.

To one of ordinary skill in the art, it would have been obvious to modify Koster with Giuhat since they are from similar search areas, viz. systems for providing number portability, such that a first mobile switching center (MSC) for receiving a call request signal with calling terminal information and called terminal information, determining an initial service provider of a called terminal from the called terminal information, and transmitting the call request signal to a communication network formed by the determined initial service provider of the called terminal, to provide a method where number portability services may be provided in wireless telecommunication networks, thereby improving directory number portability in a telephone network (Giuhat, Col.3; lines 34-36).

Regarding Claims 2 and 7, Koster further teaches a subscriber management database (DB) on every communication network formed by each service provider for storing service change information including information relating to an initial service provider of the calling terminal and the called terminal, and information relating to a change in the service provider (Col.6;37-46, NPDB); wherein the first MSC detects an initial service provider of the called terminal based on the service change information (Col.6;46-51 and Col.6;61-65, first MSC detects initial service provider based on LRN from the NPDB), and the second MSC determines whether a service of the called terminal is changed, based on the service change information

(Col.6;46-51 and Col.6;61-65, second MSC determines whether a service of the called terminal is changed based on LRN from the NPDB).

2. Claims 3-5 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koster (US Patent 6240293 B1) and Giuhat et al (US Patent 5881145) in further view of Mazzarella et.al (US Pub. 2002/0107011 A1).

Regarding Claims 3 and 8, Koster and Giuhat teaches all the limitations as recited in claims 2 and 7, however the combination **is silent on** the service change information includes serial numbers of the calling terminal and the called terminal, a service provider change identification number, a service provider identification number, and a mobile identification number.

Mazzarella teaches that depending on the service provider the information needed to provide for a service change is different (Par.18;9-13). Mazzarella teaches that all of the following are necessary for providing number portability when a service is changed, the serial numbers of the calling terminal and called terminal (Par.16;9-16, i.e. ESN), a service provider change identification number (Par.18;9-11, new service providers ID), a service provider identification number (Par.14;8-12, the current provider is known), and a mobile identification number (Par.18;9-11, the MDN is the mobile identification number), therefore to the examiner it is obvious that a service change information could comprise of all the above.

To one of ordinary skill, in the art, it would have been obvious to modify Koster and Giuhat with Mazzarella at the time of the invention, since they are from similar search areas, viz. number portability, such that the service change

information includes serial numbers of the calling terminal and called terminal, a service provider change identification number, a service provider identification number, and a mobile identification number, since it is obvious that all of the above are necessary for porting numbers between service providers even though they are not explicitly disclosed in every reference pertaining to the topic of number portability, to provide a means of correctly routing the call to the appropriate switching node at the destination recipient network.

Regarding Claims 4 and 9, the combination as discussed above teaches all the limitations as recited in claims 3 and 8, Koster teaches first MSC determines the dialed digits and routes the call paths (Col.6;1-9) and the first MSC can query the NPDB to determine appropriate treatment of a call (Col.9;1-2). It is obvious the first MSC determines the mobile identification number stored in the subscriber management DB, determines the service provider change identification number and the service provider identification number stored in association with the determined mobile identification number, and determines an initial service provider of the called terminal through the service provider change identification number and the service provider identification number (See rejection of Claim 3).

To one of ordinary skill, in the art, it would have been obvious to modify Koster and Giuhart with Mazzearella at the time of the invention, since they are from similar search areas, viz. number portability, such that the first MSC determines the mobile identification number stored in the subscriber management DB, determines the service provider change identification number and the service provider

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identification number stored in association with the determined mobile identification number, and determines an initial service provider of the called terminal through the service provider change identification number and the service provider identification number, since it is obvious that all of the above are necessary for porting numbers between service providers even though they are not explicitly disclosed in every reference pertaining to the topic of number portability, to provide a means of correctly routing the call to the appropriate switching node at the destination recipient network.

Regarding Claims 5 and 10, the combination as taught above teaches all the limitations as recited in claims 4 and 9, and Koster further teaches the second MSC determines whether a service provider of the called terminal is changed, based on the service provider change identification number (Col.6:37-53, the MSC utilizes the NPDB to determine of a service provider of the called terminal is changed, based on the service provider change identification number).

Allowable Subject Matter

1. Claims 11 and 16-18 are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter:

Claim 11 recites, *inter alia*, the service provider change identification number has two digits, a first digit indicates addition or subtraction on the service provider identification number and a second digit indicates a weight for performing addition or subtraction on the service provider identification number. These claims comprise a

particular combination of elements, which is neither taught nor suggested by the prior art.

Claims 16-18 are allowable as being dependent on allowed claim 11.

(10) Response to Argument

A. GROUND OF REJECTION (Claims 1-2 and 3-5)

A.1. Claim 1

- Appellant argues that the examiner alleges that Koster does not teach “a second MSC for determining a changed service provider of the called terminal based on the called terminal information included in the call request signal transmitted from the first MSC”.

The examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The rejection was made by a combination of references, Koster in view of Giuhat. Koster teaches that second and third MSC's are utilized to properly route calls to ported directory numbers (Fig.1;55, second MSC and Fig.1;65, third MSC, also See rejection of claim 1). The examiner further states that Koster is **silent on** a first mobile switching center (MSC) for receiving a call request signal with calling terminal information and called terminal information, determining an initial service

provider of a called terminal from the called terminal information, and transmitting the call request signal to a communication network formed by the determined initial service provider of the called terminal, now this is where Giuhat is brought in.

Giuhat teaches that redirection of calls to ported directory numbers are routed using the ported directory number as the called party number, from an originating network node towards the donor network node (Abstract; lines 6-9). It is obvious that Giuhats concept in combination with Koster's system of processing calls and providing local number portability in a wireless communications environment, where the originating network (i.e. originating service provider) with an MSC (Koster; Col.6; lines 1-9, MSC's are essential for routing calls between wireless base stations and PSTN's and also allows mobile users to communicate with one another), would provide a system to properly route the ported directory number (i.e. the dialed number). The originating service provider with an MSC as taught by Koster would receive a call request at the first MSC and determine the initial service provider (i.e. donor service provider or second MSC) and route the call accordingly.

- Appellant argues that claim 1 recites in part a second MSC, which receives a call request from a first MSC and a third MSC, which receives the call request transmitted from the second MSC. This arrangement is not taught or fairly suggest by Koster and Giuhat, combined or alone.

The examiner respectfully disagrees. See rejection of Claim 1.

- Appellant argues that the present invention discloses determining a changed service provider using called terminal information in a communication network formed by an initial service provider, while Giuhat only discloses routing a call to recipient network node using a ported directory number in intermediate network node. Giuhat merely discloses intercepting the call at a predetermined intermediate network node between an originating network node and a donor network node.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Looking at claim 1, it is clear that the claims are directed to a first MSC determining an initial service provider (i.e. second MSC) and then initial service provider, (i.e. second MSC) determining a changed service provider, and from the rejection of claim 1, it is clear that the examiner has addressed the cited claim language by the combination of Koster and Giuhat.

Giuhat teaches of a concept well known in telecommunication systems that redirection of calls to ported directory numbers are routed using the ported directory number as the called party number, from an originating network node towards the donor network node (Abstract; lines 6-9). It is obvious that Giuhats concept in combination with Koster's system of processing calls and providing

local number portability in a wireless communications environment, where the originating network (i.e. originating service provider with an MSC (Koster; Col.6; lines 1-9, MSC's are essential for routing calls between wireless base stations and PSTN's and also allows mobile users to communicate with one another) would provide a system to properly route the ported directory number (i.e. the dialed number). The originating service provider with an MSC as taught by Koster would receive a call request at the first MSC and determine the initial service provider (i.e. donor service provider or second MSC) and route the call accordingly. Further, See rejection of claim 1.

- Appellant argues that the proposed combination of Giuhat with Koster would fail to produce the feature of determining an initial service provider from the called terminal information as claimed.

The examiner respectfully disagrees. Giuhat teaches of a concept well known in telecommunication systems that redirection of calls to ported directory numbers are routed using the ported directory number as the called party number, from an originating network node towards the donor network node (Abstract; lines 6-9). It is obvious that Giuhats concept in combination with Koster's system of processing calls and providing local number portability in a wireless communications environment, where the originating network (i.e. originating service provider) with an MSC (Koster; Col.6; lines 1-9, MSC's are essential for routing calls between wireless base stations and PSTN's and also

allows mobile users to communicate with one another) would provide a system to properly route the ported directory number (i.e. the dialed number). The originating service provider with an MSC as taught by Koster would receive a call request at the first MSC and determine the initial service provider (i.e. donor service provider or second MSC) and route the call accordingly. Therefore, the proposed combination of Giuhart with Koster would produce the feature of determining an initial service provider from the called terminal information.

Further, See rejection of claim 1.

- Appellant argues that the examiners citation of (Abstract;6-9) of Giuhart leaves the appellant wondering what the citation of 6-9 is and the rejection is improper for want of completeness.

The examiner respectfully disagrees. The examiner believes that it is clear that the examiner is referring to lines 6-9 of the Abstract in the citation of (Abstract;6-9) from Giuhart. The examiner uses the same format i.e. (Col.8;53-55) throughout the entire Final Office Action in citing the Koster reference and the Appellant did not have any trouble understanding the citation of 53-55 meant lines 53-55.

- Appellant argues that the examiner states "Koster is silent on a first mobile switching center (MSC)..." yet the examiner cites the abstract of Giuhart for the proposition that Giuhart discloses redirection of calls to ported directory numbers are

routed using the ported directory numbers as the called party number, from an originating network node towards the donor network node, not first mobile switching center.

The examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Giuhat teaches of a concept well known in telecommunication systems that redirection of calls to ported directory numbers are routed using the ported directory number as the called party number, from an originating network node towards the donor network node (Abstract; lines 6-9). It is obvious that Giuhats concept in combination with Koster's system of processing calls and providing local number portability in a wireless communications environment, where the originating network (i.e. originating service provider) with an MSC (Koster; Col.6; lines 1-9, MSC's are essential for routing calls between wireless base stations and PSTN's and also allows mobile users to communicate with one another) would provide a system to properly route the ported directory number (i.e. the dialed number). The originating service provider with an MSC as taught by Koster would receive a call request at the first MSC and determine the initial service provider (i.e. donor service provider or second MSC) and route the call accordingly. Further, See rejection of claim 1.

- Appellant argues that the examiner does not give any patentable weight to the phrase "a first mobile switching center (MSC)".

The examiner respectfully disagrees. See rejection of claim 1.

- Appellant argues that Giuhat falls short of disclosing the novel features of the present invention.

The examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Giuhat references teaches a well known concept well known in telecommunication systems that redirection of calls to ported directory numbers are routed using the ported directory number as the called party number, from an originating network node towards the donor network node (Abstract; lines 6-9). It is obvious that Giuhats concept in combination with Kusters system of processing calls and providing local number portability in a wireless communications environment, where the originating network (i.e. originating service provider) with an MSC (Koster; Col.6; lines 1-9, MSC's are essential for routing calls between wireless base stations and PSTN's and also allows mobile users to communicate with one another) would provide a system to properly route the ported directory number

(i.e. the dialed number). The originating service provider with an MSC as taught by Koster would receive a call request at the first MSC and determine the initial service provider (i.e. donor service provider or second MSC) and route the call accordingly. Further, See rejection of claim 1.

- Appellant argues that the examiner has used impermissible hindsight in the 103 rejection.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The examiner combines concepts which are well known in the art to reject the claimed invention and as can be seen in the rejections of claims 1 and 6, it is clear that a prima facie case of obviousness has been established to provide a method where number portability services may be provided in wireless telecommunication networks, thereby improving directory number portability in a telephone network.

Regarding Claims 1 and 6, Giuhat teaches of a concept well known in telecommunication systems that redirection of calls to ported directory numbers

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are routed using the ported directory number as the called party number, from an originating network node towards the donor network node (Abstract; lines 6-9). It is obvious that Giuhats concept in combination with Koster's system of processing calls and providing local number portability in a wireless communications environment, where the originating network (i.e. originating service provider) with an MSC (Koster; Col.6; lines 1-9, MSC's are essential for routing calls between wireless base stations and PSTN's and also allows mobile users to communicate with one another) would provide a system to properly route the ported directory number (i.e. the dialed number). The originating service provider with an MSC as taught by Koster would receive a call request at the first MSC and determine the initial service provider (i.e. donor service provider or second MSC) and route the call accordingly. Further, See rejection of claim 1.

- Appellant expresses disagreement with the examiners response to arguments in the Advisory Action.

The examiner would like to note that the arguments should be directed towards the Final Office Action.

A.2. Claim 2

- Appellant argues that Claim 2 is in error for the reasons given above with respect to claim 1 upon which claim 2 depends.

Examiner respectfully disagrees. Claim 1 and Claim 2 are not in error for the reasons given above with respect to the arguments of claim 1 upon which claim 2 depends.

A.3. Claim 3

- Appellant argues that Claim 3 is in error for the reasons given above with respect to claim 1 upon which claim 3 depends.

Examiner respectfully disagrees. Claim 1 and Claim 3 are not in error for the reasons given above with respect to the arguments of claim 1 upon which claim 3 depends.

A.4. Claim 4

- Appellant argues that Claim 4 is in error for the reasons given above with respect to claim 1 upon which claim 4 depends.

Examiner respectfully disagrees. Claim 1 and Claim 4 are not in error for the reasons given above with respect to the arguments of claim 1 upon which claim 4 depends.

A.5. Claim 5

- Appellant argues that Claim 5 is in error for the reasons given above with respect to claim 1 upon which claim 5 depends.

Examiner respectfully disagrees. Claim 1 and Claim 5 are not in error for the reasons given above with respect to the arguments of claim 1 upon which claim 5 depends.

B. GROUND OF REJECTION 2 (Claims 6-7 and 8-10)

B.1. Claim 6

- Appellant argues that claim 6 is in error for the same reasons as claim 1 and that the rejection of claim 6 is in error since claims 1 and 6 were clumped together where claim 6 is a method claim where as claim 1 is a system claim.

The examiner respectfully disagrees. The grouping of claims is acceptable since the claimed limitations are the same. The difference is that one is a system versus a method, but it is clear that all the of method step will be performed in the system. Therefore the claims 1 and 6 are able to be grouped as being equally applicable.

B.2. Claim 7

- Claim 7 is not in error since claim 6 is not in error.

B.3. Claim 8

- Claim 8 is not in error since claim 6 is not in error.

B.4. Claim 9

- Claim 9 is not in error since claim 6 is not in error.

B.5. Claim 10

- Claim 10 is not in error since claim 6 is not in error.

(11) Related Proceeding(s) Appendix


For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


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Wesley Kim

Conferees:


GEORGE ENG
SUPERVISORY PATENT EXAMINER

George Eng


DUC M. NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Duc Nguyen